Illuminator User Guide

Sirius Illuminator Range

Models covered by this manual:

UFOSIRCW | UFOSIRCW-C | UFOSIRCW-T
UFOSIRSW | UFOSIRSW-C | UFOSIRSW-T
UFOSIRNW | UFOSIRNW-C | UFOSIRNW-T
UFOSIRWW | UFOSIRWW-C | UFOSIRWW-T
UFOSIRGW | UFOSIRGW-C | UFOSIRGW-T

Please read this manual fully before installing, operating or performing maintenance on the illuminator unit.

Universal Fiber Optic Lighting LLC
6119A Clark Center Avenue | Sarasota | FL34238
Tel: 941-343-8115 | Fax:941-296-7906
www.fiberopticlighting.com

Issue 1 | Revised: 24062014

INTRODUCTION

Thank you for purchasing this UFO Illuminator.

Please read these instructions fully before connecting your unit to the electrical supply, and keep them for future reference.

The UFO Sirius range of illuminators are suitable for use with either glass or PMMA fiber-optic harnesses.

The Sirius is powered by a 100-240 VAC remote desktop power supply unit.

IMPORTANT

THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

MODEL TYPES

The Sirius LED illuminator incorporates a range of LED arrays focussed through a series of static lenses to provide optimum display and illumination within the following optical range.

Model	Description	CRI	Color Temperature	Lumen Output
SIRCW	Cool White	75	5700K	5700
SIRSW	Studio White	88	5300K	4650
SIRNW	Neutral White	82	4000K	5300
SIRWW	Warm White	83	3000K	4650
SIRGW	Gallery White	98	3000K	3450

CONSTRUCTION DETAILS

Model	Description
UFOSIRCW	White light LED - cool white output - manual, DMX or 0-10V dimming
UFOSIRSW	White light LED - studio white output - manual, DMX or 0-10V dimming
UFOSIRNW	White light LED - neutral white output - manual, DMX or 0-10V dimming
UFOSIRWW	White light LED - warm white output - manual, DMX or 0-10V dimming
UFOSIRGW	White light LED - gallery white output - manual, DMX or 0-10V dimming
UFOSIRCW-C	White light LED with 6 segment decorative colorwheel- cool white output - manual, DMX or 0-10V dimming and wheel control
UFOSIRSW-C	White light LED with 6 segment decorative colorwheel- studio white output - manual, DMX or 0-10V dimming and wheel control
UFOSIRNW-C	White light LED with 6 segment decorative colorwheel- neutral white output - manual, DMX or 0-10V dimming and wheel control
UFOSIRWW-C	White light LED with 6 segment decorative colorwheel- warm white output - manual, DMX or 0-10V dimming and wheel control
UFOSIRGW-C	White light LED with 6 segment decorative colorwheel- gallery white output - manual, DMX or 0-10V dimming and wheel control
UFOSIRCW-T	White light LED with metal decorative twinkle wheel- cool white output - manual, DMX or 0-10V dimming and wheel control
UFOSIRSW-T	White light LED with metal decorative twinkle wheel - studio white output - manual, DMX or 0-10V dimming and wheel control
UFOSIRNW-T	White light LED with metal decorative twinkle wheel- neutral white output - manual, DMX or 0-10V dimming and wheel control
UFOSIRWW-T	White light LED with metal decorative twinkle wheel- warm white output - manual, DMX or 0-10V dimming and wheel control
UFOSIRGW-T	White light LED with metal decorative twinkle wheel- gallery white output - manual, DMX or 0-10V dimming and wheel control

POWER SUPPLY REQUIREMENTS

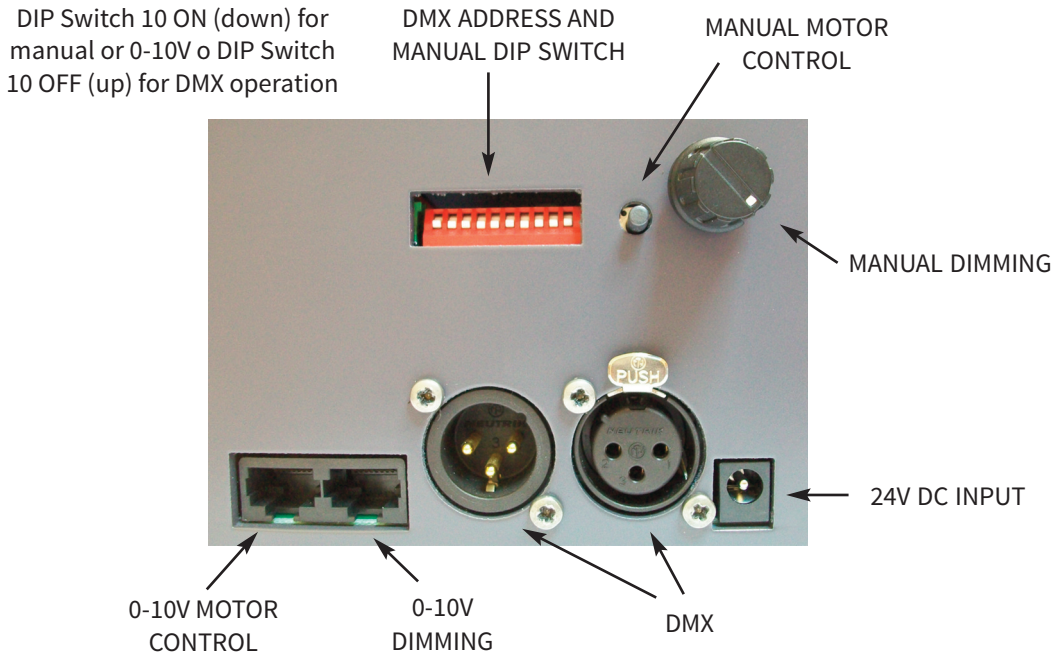
The LED Illuminator is powered from a multifunction, multi-voltage, desk top Power Supply Unit. Remove the 24V Desk Top PSU from its box. This PSU is an IEC input device catering for UK, European and USA mains supplies using the relevant power cord.

The SIRIUS LED illuminator must be powered by the supplied 24V 3.75A Desk Top LPS/Class 2 power supply.

GENERAL

The SIRIUS is a 90W White Light LED Illuminator with optional decorative wheel capability. The SIRIUS LED Illuminator driver PCB has all the control functionality fitted as standard. The following control functionality is available (see following image)

1. Manual dimming
2. Manual Decorative Wheel control (various wheel speeds and stop/start)
3. DMX dimming
4. DMX Decorative Wheel control
5. 0-10V Decorative Wheel control – channel 1 (receiving)
6. 0-10V dimming – channel 2 (receiving)



CONNECTION – MANUAL OPERATION

There are 2 connections required – the fiber port and the mains supply cable. The fiber port should be connected first. Connect and secure the fiber optic connector into the green collar and secure using the M5 locking screw.

Connect the IEC power cord into the Desk Top PSU and plug the mains plug into the electrical supply socket. Switch on power the led Indicator will illuminate and the illuminator is ready for use. If no light is produced consult the TROUBLESHOOTING section.

NOTE: THESE ILLUMINATORS ARE NOT MAINS DIMMABLE

MANUAL OPERATION - WHITE LIGHT DIMMING

For normal manual operation DIP switch 10 must be ON.

During normal manual white light operation the illuminator can be dimmed from 0 to 100% using the Manual Dimming Control on the side panel.

MANUAL OPERATION - DECORATIVE WHEEL CONTROL

For normal manual operation DIP switch 10 must be ON.

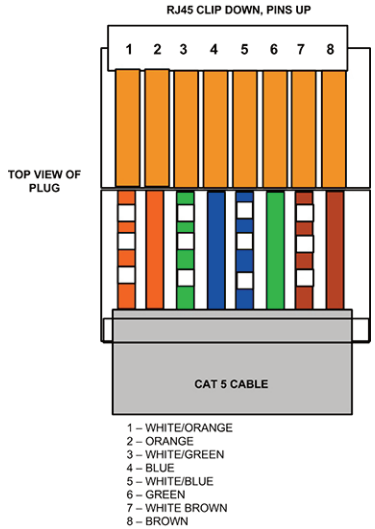
During normal manual decorative operation the illuminator can be dimmed from 0 to 100% using the Manual Dimming Control and the motor can be controlled from stop to 4 speeds (slow to fast) using the push button Manual Motor Control on the side panel.

CONNECTION – 0-10V OPERATION

There are 3 connections required – the fiber port, the mains supply cable and the 0-10V cable. The fiber port should be connected first. Connect and secure the fiber optic connector into the aluminium collar and secure using the M5 locking screw.

Connect the IEC power cord into the Desk Top PSU and plug the mains plug into the electrical supply socket. Switch on power the led indicator will illuminate and the illuminator is ready for use. In no light is produced consult the TROUBLESHOOTING section.

Connect the 0-10V RJ45 as detailed below using CAT5 cable



0-10V RJ45 Connections:

-VE RJ45 Brown/White (Pin 7)
+VE RJ45 Blue/White (Pin 5)

0-10V OPERATION - WHITE LIGHT DIMMING

For 0-10v dimming operation DIP switch 10 must be ON, the Manual Dimming Control on the side panel must be turned to minimum (fully counter clockwise), and the RJ45 plug must be plugged into the right hand RJ45 socket on the side panel.

The illuminator can be dimmed from 0 (0 Volts DC) to 100% (10V DC) with a receiving 0-10V signal.

0-10V OPERATION - DECORATIVE WHEEL CONTROL

For 0-10v wheel control DIP switch 10 must be ON, and the RJ45 plug must be plugged into the left hand RJ45 socket on the side panel.

The illuminator decorative wheel can be controlled with a receiving 0-10V signal as detailed in the following 0-10V value table.

Function	Value	Description
Color Wheel	0V	White (Color 1)
Color Wheel	0.4V	Yellow (Color 2)
Color Wheel	0.8V	Green (Color 3)
Color Wheel	1.2V	Orange (Color 4)
Color Wheel	1.6V	Magenta (Color 5)
Color Wheel	2V	Blue (Color 6)
Color Wheel	2.3V	Returns to White (Color 1)
Color Wheel	2.6V	Blue (Color 6)
Color Wheel	3V	Magenta (Color 5)
Color Wheel	3.6V	Orange (Color 4)
Color Wheel	4V	Green (Color 3)
Color Wheel	4.4V	Yellow (Color 2)
Color Wheel	4.6V	White (Color 1)
Color Wheel	5.4V to 9.2V	Slow to fast clockwise*
Color Wheel	9.3V to 10V	Fast counter clockwise*

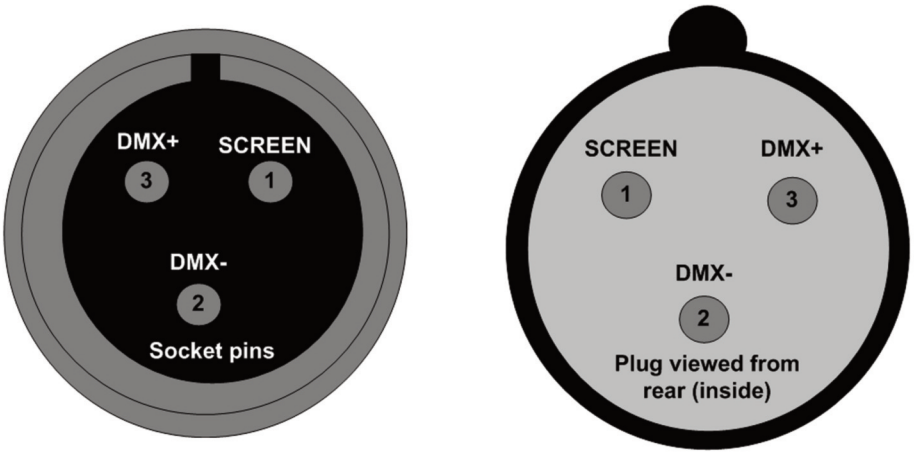
NOTE:
For Twinkle wheel control use values marked*

CONNECTION – DMX OPERATION

There are 3 connections required – the fiber port, the mains supply cable and the 0-10V cable. The fiber port should be connected first. Connect and secure the fiber optic connector into the aluminium collar and secure using the M5 locking screw.

Connect the IEC power cord into the Desk Top PSU and plug the mains plug into the electrical supply socket. Switch on power the led indicator will illuminate and the illuminator is ready for use. In no light is produced consult the TROUBLESHOOTING section.

Connect the 3 pin XLR sockets on the side panel as detailed below using an approved DMX cable.

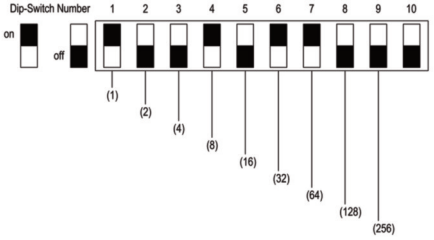


NOTE:
It is recommended that a 120ohm terminating resistor be connected across DMX+ and DMX- on the last illuminator in the DMX universe or cable run

SETTING THE DMX ADDRESS

The DMX address of each illuminator is set manually using the DIP switch accessible on the side panel as shown below.

DMX B Start Ch#	DIP-Switches on	DMX B Start Ch#	DIP Switches on
1	1	11	1,2,4
2	2	12	3,4
3	1,2	13	1,3,4
4	3	14	2,3,4
5	1,3	15	1,2,3,4
6	2,3	16	5
7	1,2,3	:	
8	4	:	
9	1,4	:	
10	2,4	511	1,2,3,4,5 ,6,7,8,9



Above Example

1 - On	6 - On	
2 - Off	7 - On	
3 - Off	8 - Off	= Address 105
4 - On	9 - Off	
5 - Off	10 - Off	

DMX OPERATION - WHITE LIGHT DIMMING

For DMX dimming operation DIP switch 10 must be OFF and the XLR plug(s) must be plugged into the XLR sockets on the side panel.

The illuminator can be dimmed on DMX channel 1 as shown in the DMX table overleaf.

DMX OPERATION - DECORATIVE WHEEL CONTROL

For DMX wheel control DIP switch 10 must be OFF and the XLR plug(s) must be plugged into the XLR sockets on the side panel

The illuminator decorative wheel can be controlled on DMX channel 2 as shown in the DMX table overleaf.

DMX OPERATION - LED/FAN CONTROL

For DMX LED and fan control, switch 10 must be OFF and the XLR plug(s) must be plugged into the XLR sockets on the side panel

The illuminator LED and Fan can be controlled on DMX channel 3 as shown in the following DMX table.

Channel	Function	Value	Description
1	Dimming	0-255	From OFF at 0 to Brightest at 255
2	Color Wheel	0-9	White - Snap to color (Color 1)
2	Color Wheel	10	Yellow - Snap to color (Color 2)
2	Color Wheel	20	Green - Snap to color (Color 3)
2	Color Wheel	30	Orange - Snap to color (Color 4)
2	Color Wheel	40	Magenta - Snap to color (Color 5)
2	Color Wheel	50 - 70	Blue - Snap to color (Color 6)
2	Color Wheel	80	Magenta - Snap to color (Color 5)
2	Color Wheel	90	Orange - Snap to color (Color 4)
2	Color Wheel	100	Green - Snap to color (Color 3)
2	Color Wheel	110	Yellow - snap to color (Color 2)
2	Color Wheel	120	White - Snap to color (Color 1)
2	Color Wheel	128-189	Slow to fast rotation clockwise
2	Color Wheel	189-255	Fast to slow rotation counter clockwise
3	LED & Fan	0-250	LED and fan ON
3	LED & Fan	251-255	LED and fan OFF

DECORATIVE WHEELS

The following decorative wheels are available.

Color Wheel

The standard decorative color wheel has 6 glass segments as follows:-
White (Clear), Yellow, Green, Orange, Magenta, Blue

Alternatively, a 6 segment or 4 segment vari-color wheel can be fitted providing the following color segment options:-

FIRE O08	Orange O18	Golden Amber O59	Apricot O14
Canary Y89	Green G78	Jade G96	Turquoise C47
Italian Blue C45	Brilliant Blue B06	Bright Blue B28	Congo B93
Violet V43	Magenta M56	Pink M63	Clear - Outputs white light

Twinkle Wheel

Two variations are available. Firstly an un-segmented wheel designed to rotate continuously in one direction only. Secondly a segmented wheel that with correct DMX controller programming can rotate clock wise and counter clockwise in sequence with an open segment being the full light default position.

MAINTENANCE

Please Note that a record of all maintenance MUST be kept in the table below, indicating what maintenance was undertaken and when. This MUST be dated for warranty purposes.

Date	Maintenance Undertaken

TROUBLESHOOTING

Problem	Possible causes	Remedy
Unit is dead - no light output and PSU power indicator is out	Mains supply off	Check supply and reinstate
	Loose mains plug	Check plugs
	Plug blown fuse (UK)	Check fuse & replace if necessary
	PSU failed	Replace PSU
Unit is dead - no light output but PSU power indicator is lit [1]	Dimming control at minimum	Adjust brightness on dimmer control
	DIP switch no. 10 not switched ON	Switch DIP switch 10 ON
	LED array or drive failure	Replace illuminator
Decorative wheel is not turning [2]	Motor control at minimum	Adjust motor control
	DIP switch no. 10 not switched ON	Switch DIP switch 10 ON
	Driver circuit or motor failure	Replace illuminator
Unit is not responding to DMX control [3]	DIP switch no. 10 is switched ON	Switch DIP switch no. 10 OFF
	DMX address not correctly set	Set correct DMX address
	No DMX signal from controller	Check DMX controller settings
	Wiring fault on DMX cables	Check cables and repair/replace
	Driver circuit failure	Replace illuminator
Not responding [4]	DIP switch no. 10 not switched ON	Switch DIP switch 10 ON
	No 0-10V signal at illuminator due to cable or controller fault	Check input to illuminator using a DMM set to correct range & rectify cable/controller fault
Responding on wrong channels [4]	RJ45 connector in wrong socket on illuminator	Plug into correct socket
Not responding [5]	Manual dimming control not set to minimum	Turn manual dimmer control fully counter clockwise
Not responding [6]	If none of above, driver circuit failure	Replace illuminator
Poor light output on fiber	Illuminator dimmed manually or by 0-10V or DMX control	Check and increase dimmer settings
	LED driver / array failure	Replace illuminator

[1] - white light manual dimming version
[2] - decorative manual motor version
[3] - for DMX only
[4] - decorative or dimming 0-10V control
[5] - dimming 0-10V control
[6] - 0-10V control

TECHNICAL SPECIFICATIONS

Description	Details
Port connector size	30mm Diameter
Fiber type	Glass/PMMA
Mains supply voltage	100-240V AC, 47-63 Hz. 0.58A
PSU output	24V DC, 3.75A, 90W Maximum
LED type	LED engine LZP 24 die emitter
LED power	90W
Mains running current	400mA Max.
VA rating	96VA
Motor type	Rotalink 25C13/YS0LPSL3E 12V 60:1
Power cord	Standard IEC
PSU type	LPS or class 2
LED type/model	White light with optional effect wheel
LED life	40,000 hours
Cool white LED array	5500K, 75CRI, 5700lm
Studio white LED array	5300K, 88CRI, 4650lm
Neutral white LED array	4000K, 82CRI, 5300lm
Warm white LED array	3000K, 83CRI, 4650lm
Gallery white LED array	3000K, 98CRI, 3450lm
DMX	User addressable (0-255) dimming, effects wheel control and on/off
Control functionality	Manual, 0-10V dimming, DMX
Operating environment	Indoor / dry
Min. ambient temperature	-10°C
Max. ambient temperature	30°C
Material	Aluminium
Color	Grey
Size (white light)	W278mm x H93mm x D152mm
Size (decorative)	W278mm x H127mm x D152mm

NOTES

Universal Fiber Optic Lighting LLC
6119A Clark Center Avenue | Sarasota | FL34238
Tel: 941-343-8115 | Fax:941-296-7906
www.fiberopticlighting.com